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- 64) PH-triggered osmotic bursting delivery devices.
- An osmotic bursting device for dispensing a beneficial agent to an aqueous environment. The device comprises a beneficial agent and osmagent surrounded at least in part by a semipermeable membrane. Alternatively the beneficial agent may also function as the osmagent. The semipermeable membrane is permeable to water and substantially impermeable to the beneficial agent and osmagent. A trigger means is attached to the semipermeable membrane (e.g., joins two capsule halves). The trigger means is activated by a pH of from 3 to 9 and triggers the eventual, but sudden, delivery of the beneficial agent. These devices enable the pH-triggered release of the beneficial agent core as a bolus by osmotic bursting.]

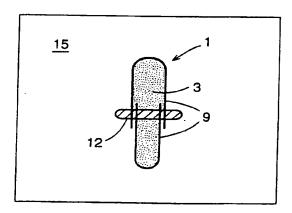


FIG. 1

EP 0 612 520 A3



EUROPEAN SEARCH REPORT

Application Number EP 94 30 1026

	DOCUMENTS CONS					
Category	tegory Citation of document with indication, where applied of relevant passages		roprinte, Relevant to claim		CLASSIFICATION OF TH APPLICATION (Int.CL5)	
Х	WO-A-92 17165 (CSL 1992 * page 7, line 39 * page 11 - page 1	ne 26 *	1-3, 12-14	A61K9/52 A61K9/28 A61K9/48 A61K9/50		
Y	EP-A-0 357 369 (PF: * column 43; examp * column 46; examp	 IZER INC) 7 N le 41 *		-8,10		
Y	SUCKER H. ET AL 'F Technologie' 1991 , GEORG THIEMS NEW YORK 018956 * page 356; table 8 * page 358, column * page 378, column	E VERLAG , S 3.20 * 1, paragraph	TUTTGART	-8,10		
Y	EP-A-0 210 540 (FUJISAWA PHARMACEU LTD) 4 February 1987 * column 2, line 17 - line 32 * * column 18; example 10 *			-3, 2-33	TECHNICAL FEELDS SEARCHED (Int.Cl.5)	
Y	WO-A-92 11845 (GLA) 1992 * page 3, paragraph 1 * * page 16 - page 17	n 6 - page 5,	paragraph 1	-3, 2-33	A61K	
x	WO-A-91 14426 (ALZA CORPORATION) 3 October 1991 * page 2, line 26 - page 3, line 19 * * page 5, line 24 - line 31 * * page 18 - page 20; examples 1,2 *			-3, 2-14		
	EP-A-0 148 811 (LEJUS MEDICAL A 17 July 1985 * page 3, line 20 - page 4, lin * page 5; example 1 *		12-14, 16			
	The present search report has b	seen drawn up for all	claims			
	Place of search	Date of com	plation of the search	T	Countries	
	THE HAGUE	18 Se	ptember 1995	Bou	lois, D	
X : parti Y : parti docu A : techi O : non-	CATEGORY OF CITED DOCUME cularly relevant if taken alone cularly relevant if combined with an ment of the same category nological background written disclosure mediate document		T: theory or principle w E: earlier patent documenter the filing date D: document ofted in th L: document ofted for or &: member of the same document	ent, but public e application ther reasons	shed on, or	

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EUROPEAN SEARCH REPORT

EP 94 30 1026

Category	Citation of decument with of relevant	n indication, where appropriate, passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Inc.CL5)
X	April 1986	ZA CORPORATION) 30 - page 3, line 3 * example 1 *	1-3, 12-16,18	
x	EP-A-0 277 925 (LE 10 August 1988 * page 2 - page 3;	JUS MEDICAL AKTIEBOLAG) example 1 *	1-3, 11-16,18	
x	GB-A-2 166 052 (AL 1986 * claims 1,2,4,6,7	ZA CORPORATION) 30 April	1-3, 12-16	
	GB-A-2 066 070 (R0 1981 * page 1, line 43 * page 2; example		1-33	
4		BA GEIGY AG) 16 January	1-3	TECHNICAL PIELDS
	The present search report has b	eco drawn up for all claims		
1	Place of nearth	Date of completion of the search	T .	Branker .
7	THE HAGUE	18 September 1995	Boule	ois, D
X : partic Y : partic docum	TEGORY OF CITED DOCUME ularly relevant if taken alone ularly relevant if combined with an ent of the same category logical background	E : earlier patent documents the filling date	ment, but publish the application	waden ad on, or

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